IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :

Takashi HAYAMA et al. : **Attn: BOX PCT**

Serial No. NEW : **Docket No. 2002_0054A**

Filed January 25, 2002 :

BIARYLUREA DERIVATIVES
[Corresponding to PCT/JP00/04991
Filed July 26, 2000]

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents,
Washington, DC 20231
Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of [X] the references listed on attached form PTO-1449 and/or [] the additional information identified below in paragraph 3. A legible copy of each reference listed on the form PTO-1449 and each U.S. patent application listed below is enclosed, except a copy is not provided for each reference previously cited by or submitted to the Patent Office in international application no. PCT/JP00/04991.

1a. [X] This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. [] This Information Disclosure Statement is submitted

ATTACHMENT C

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) [] the certification of paragraph 2 below is provided, **or**

(2) [] the fee of $180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. [] This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of $180.00 specified in 37 CFR 1.17(p) is enclosed.

2. It is hereby certified

a. [] that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. [] that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. [X] Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

The international preliminary search report mentions as follows:

1. Opinion
Claims 1 to 10 have the novelty (N).
Claims 1 to 10 have the inventive step (IS).
Claims 1 to 10 have the industrial applicability (IA).

2. Prior Art References and Explanation

Prior Art Reference 1/WO,00/26203, A1

Prior Art Reference 2/WO,99/65884, A1

Prior Art Reference 3/WO,99/31086, A1

Prior Art Reference 4/MARCH, J., "Advanced Organic Chemistry, Third Edition"
John Wiley & Sons, 1985, p.786, 984-985

Prior Art Reference 5/WO,99/24416, A1

Prior Art Reference 6/PINES, J.
The cell cycle kinases.
Semin. Cancer Biol., 1944, Vol. 5, No. 4, p.305-313

Prior Art Reference 1 relate to 2-ureido-thiazole derivatives, which is useful for treating cell growth diseases including cancer caused by disorder of phospholyzation enzyme. In pages 30 to 35 of the prior art reference, there is described that such derivatives have cdk2/Cycline inhibiting activity. Additionally, in page 62 and page 66 there are described N-(5-isopropyl-1,3-thiazol-2-yl)-N-(2-methyl-1,3-dioxo-2,3-dihydro-1H-isoindol-5-yl)urea and N-(5-isopropyl-1,3-thiazol-2-yl)-N-(2,3-dihydro-1H-inden-5-yl)urea, respectively.

Prior Art Reference 2 relates to aminothiazolyl derivatives having cdk2 and cdk4 inhibiting activities. In page 34 of the Prior Art Reference 2 as the Example 86, there is described the compound corresponding to the general formula of claim 1 of this international application, wherein X is N, Y is SO_2, X together with R2 and R3 from OXO and Ar is thiazolyl substituted by Y1-W1-Y2-Rp in which Rp is oxazolyl substituted by t-butyl, W1 is -CH=CH, each of Y1 and Y2 is a single bond, and each of R1, R4 and R5 is H.

Prior Art Reference 3 relates to quinoline derivatives having cerotonin antagonist activity. In page 46 there is described as Example 68 N-[4-(4-methylpiperazine -1-yl)quinolin-6-yl]-N'-[5-oxoindan-2-yl]-urea.

At the time of request for the preliminary examination, the claim 1 includes the compounds described in the Prior Art References 1 and 3, but quinolyl was deleted from the choice of Ar, and when the ring containing X is a conjugated structure from two rings Ar is not thiazolyl any more by submitting amendment filed with the document dated 3 October 2001. The present claim 1 does not include the compounds disclosed in the Prior Art Reference 1 or 3.

It is not obvious from the references enlisted in the international search report that the compound described in the claim 1 has Cdk inhibiting activity.

Thus, the compound described in claims 1 to 6, the method for producing the compound of claims 7 to 9 and Cdk4/Cdk6 inhibitory agent described in claim 10 are not described in any of the Prior Art References cited in the international search report and those claims are not obvious from those references, and therefore those claims have novelty and inventive step prescribed in PCT section 33(2) and (3).

Opinion concerning clarity of the claims, specification and drawing as well as the enough support for claims by the specification is as follows.

The phrase "substituents" in the claims is not clear.

4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:

a. [] a full or partial English language translation submitted herewith,

b. [] a foreign patent office search report (in the English language) submitted herewith,

c. [] the concise explanation contained in the specification of the present application at page,

d. [] the concise explanation set forth in the attached English language abstract,

e. [] the concise explanation set forth below or on a separate sheet attached to the reference:

5. [X] A foreign patent office search report citing one or more of the references is enclosed along the International Preliminary Examination Report (in Japanese).

Respectfully submitted,

Takashi HAYAMA et al.

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10/031795

JC13 Rec'd PCT/PTO 25 JAN 2002

Sheet 1 of 1

FORM PTO 1449 (*modified*)

U.S. DEPARTMENT OF COMM[redacted]
PATENT AND TRADEMARK O[redacted]

LIST OF REFERENCES CITED BY APPLICANT(S)
(*Use several sheets if necessary*)

Date Submitted to PTO: January 25, 2002

ATTY DOCKET NO.	SERIAL NO.
2002_0054A	NEW

APPLICANT: Takashi HAYAMA et al.

FILING DATE	GROUP
January 25, 2002	

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	AE	00/26203	5/2000	WO				
	AF	99/65884	12/1999	WO				
	AG	00/47577	8/2000	WO				
	AH	99/31086	6/1999	WO				
	AI	99/24416	5/1999	WO				

OTHER DOCUMENT(S) (*Including Author, Title, Date, Pertinent Pages, Etc.*)

	AJ	March, J., "Advanced Organic Chemistry, Third Edition", John Wiley & Sons, p. 786, 984-985 (1985).
	AK	Pines, J. "The Cell Cycle Kinases", Semin. Cancer Biol., Vol. 5, No. 4, p. 305-313, (1994).
	AL	

EXAMINER	DATE CONSIDERED

**EXAMINER:* *Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.*